



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,305	10/20/2000	Saewoong Bahk	5000-1-153	8445

33942 7590 04/19/2004

CHA & REITER, LLC
210 ROUTE 4 EAST STE 103
PARAMUS, NJ 07652

EXAMINER

NGUYEN, DAVID Q

ART UNIT	PAPER NUMBER
----------	--------------

2681

DATE MAILED: 04/19/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/693,305

Applicant(s)

BAHK ET AL.

Examiner

David Q Nguyen

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-12 and 17-26 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/25/04 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 contains subject matter "transmitting a message for adjusting an admission threshold of in the cells adjacent to said particular cell according to adjustment of the admission threshold of the particular cell" which is not clear.

What does "an admission threshold of in the cells adjacent" mean?

Examiner tries the best to understand the language of the above subject matter. Examiner assume that the above subject matter means: "transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell according to adjustment of the admission threshold of the particular cell".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagarajan et al (US 5884174).

Regarding claim 1, Nagarajan et al disclose a method for adaptively adjusting an admission threshold in a wireless network including a plurality of cells, wherein a base station controller associated with a particular cell of the plurality of cells adaptively adjusts the admission threshold for determining whether to admit or drop a handoff call requested from a cell adjacent to one of the cells in communication with a mobile station, to satisfy a target handoff dropping probability for guaranteeing a quality of service (QoS), the method comprising the steps of: (a) monitoring a quantity of handoff drops versus a quantity of handoff calls occurring for an initial Lp term (see fig. 3A-3C, 4A-4B and fig. 5); (b) adjusting the admission threshold according to a result of the initial Lp term monitored in step a (see fig. 3A-3C, 4A-4B and fig. 5); (c) repeating the steps (a) and (b) for a successive Lp term, while changing a value of a second term SP until the target handoff dropping probability is satisfied during the successive Lp term, which is longer than or equal to the initial Lp term and includes the initial Lp term (see fig. 3A-3C, 4A-4B and fig. 5);

Regarding claim 5, Nagarajan et al disclose an apparatus for adaptively adjusting an admission threshold in a wireless network including a plurality of cells, a base station controller

Art Unit: 2681

associated with a particular cell of the plurality of cells adaptively adjusts the admission threshold for determining whether to admit or drop a handoff call requested from a cell adjacent to one of the cells in communication with a mobile station, to satisfy a target handoff dropping probability for guaranteeing a quality of service (QoS), the apparatus comprising:

a monitoring block for monitoring the number of handoff drops versus the number of occurred handoff calls for an initial L_p term (see fig. 3A-3C, 4A-4B and fig. 5); a comparator for comparing a monitoring result with the target handoff dropping probability (see fig. 3A-3C, 4A-4B and fig. 5); and an adjusting block for adjusting the admission threshold according to a comparison result output from the comparator (see fig. 3A-3C, 4A-4B and fig. 5); wherein the monitoring block monitors a successive L_p term, while changing a value of a second term S_p until the target handoff dropping probability is satisfied during the second term S_p , which is longer than or equal to the initial L_p term and includes the initial L_p term, the comparator and the adjusting block performing corresponding operations according to the comparison result (see fig. 3A-3C, 4A-4B and fig. 5).

Regarding claims 2 and 6, the method and apparatus of Nagarajan et al also discloses wherein the step includes decreasing the admission threshold and increasing the value of second term S_p when the target handoff dropping probability is not satisfied (see fig. 4A and fig. 4B).

Regarding claims 3 and 7, the method and apparatus of Nagarajan et al also discloses wherein the initial L_p term set to be equal to the second term S_p (see fig. 4A and fig. 4B).

Regarding claims 4 and 8, the method and apparatus of Nagarajan et al also discloses wherein the value of the successive L_p term is increased in a unit of the value of the initial L_p term (see fig. 4A and fig. 4B).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan et al (US 5884174) in view of GSM Network Optimization May 2000.

Regarding claim 13, Nagarajan et al disclose a method for adaptively adjusting an admission threshold in a wireless network including a plurality of cells, wherein a base station controller associated with a particular cell of the plurality of cells adaptively adjusts the admission threshold for determining whether to admit or drop a handoff call requested from a cell adjacent to one of the cells in communication with a mobile station, to satisfy a target handoff dropping probability for guaranteeing a quality of service (QoS), the method comprising the steps of: monitoring a quantity of handoff drops versus a quantity of handoff calls occurring for an initial L_p term (see fig. 3A-3C, 4A-4B and fig. 5); a comparator for comparing the monitoring result with the target handoff dropping probability (see fig. 3A-3C, 4A-4B and fig. 5); an adjusting block for adjusting the admission threshold according to a comparison result output from the comparator (see fig. 3A-3C, 4A-4B and fig. 5); wherein the monitoring block monitors a successive L_p term, while changing a value of a second term S_p until the target

Art Unit: 2681

handoff dropping probability is satisfied during the second term S_p , which is longer than or equal to the initial 4 term and includes the initial L_p term, the comparator and the adjusting block performing corresponding operations according to the comparison result (see fig. 3A-3C, 4A-4B and fig. 5). Nagarajan et al do not mention a message transmission block for transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell, according to an adjustment of the admission threshold of the particular cell. However, GSM Network Optimization May 2000 discloses a message transmission block for transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell, according to an adjustment of the admission threshold of the particular cell (see pages 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of GSM Network Optimization May 2000 to the method of Nagarajan et al in order to get a small handoff dropping probability for guaranteeing a quality of service (QoS).

Regarding claim 14, the apparatus of Nagarajan et al in view GSM Network Optimization May 2000 also discloses wherein the step includes decreasing the admission threshold and increasing the value of second term S_p when the target handoff dropping probability is not satisfied (see fig. 4A and fig. 4B of Nagarajan).

Regarding claim 15, the apparatus of Nagarajan et al in view GSM Network Optimization May 2000 also discloses wherein the initial L_p term set to be equal to the second term S_p (see fig. 4A and fig. 4B of Nagarajan).

Regarding claim 16, the apparatus of Nagarajan et al in view GSM Network Optimization May 2000 also discloses wherein the value of the successive Lp term is increased in a unit of the value of the initial Lp term (see fig. 4A and fig. 4B of Nagarajan).

Allowable Subject Matter

5. Claims 9-12 and 17-26 are allowed.

6. The following is an examiner's statement of reasons for allowance:

Claim 9 is allowed because the method of the closest prior art, Nagarajan et al (US 5884174) fails to disclose the followings steps of : (c) transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell, according to the adjustment of the admission threshold of the particular cell; and repeating the step (a) and (c) as claimed in claim 9.

Claims 10-12 depend on claim 9. Therefore, they are allowed.

Claim 17 is allowed because the method of the closest prior art, Nagarajan et al (US 5884174) fails to disclose the followings steps of : (a) upon receipt of a new call request to the adjacent cell, comparing a sum of an allocated bandwidth of said adjacent cell and a bandwidth for the requested a new call with admission threshold of said adjacent cell, and determining whether to admit or block the requested new call; (d) transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell, according to the adjustment of the admission threshold of the particular cell; and repeating the step (b) and (d) as claimed in claim 17.

Claims 18-21 depend on claim 17. Therefore, they are allowed.

Art Unit: 2681

Claim 22 is allowed because the method of the closest prior art, Nagarajan et al (US 5884174) fails to disclose the followings steps of : a call admitting/dropping decision block for comparing, upon receipt of a new call request to the adjacent cell, a sum of an allocated bandwidth of said adjacent cell an a bandwidth for the requested new call with an admission threshold of said adjacent, and determining whether to admit or block the requested new call; a message transmission block for transmitting a message for adjusting an admission threshold in the cells adjacent to said particular cell, according to the adjustment of the admission threshold of the particular cell as claimed in claim 22.

Claims 23-26 depend on claim 22. Therefore, they are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

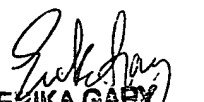
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q Nguyen whose telephone number is 703-605-4254. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

DN
David Nguyen


ERIKA GARY
PATENT EXAMINER